

NOTES ON BUTTERFLIES FROM THE NAGA HILLS.

BY

MAJOR H. C. TYTLER, 17TH INFANTRY.

(With Plate B.)

PART II.

(Continued from page 65 of this Volume.)

FAMILY—PAPILIONIDÆ.

188. **Armandia lidderdali**, *Atkinson*.—Males not uncommon, females rare, at 5,500 ft.—7,000 ft. during the latter half of August, September and the first half of October. The first specimen was obtained on 19th August and the last on November 10th. Perfect males were only obtainable till about 20th September, after that the majority of the specimens were damaged. Most of the females taken were perfect. The butterfly though not uncommon is rather local and keeps to the higher ridges. Many specimens were captured on a white flowering tree which comes into blossom towards the middle of September. Two females after capture laid eggs which were yellow and appeared very small for the size of the insect. The flight is graceful and the insect is not difficult to capture when it occasionally comes down to within reach of the net, but as a rule it keeps high up amongst the tree tops.

189. **Leptocircus curius**, *Fabr.*—Taken commonly throughout the year at low elevations.

190. **Leptocircus meges**, *Zincken-Sommer*. Race, **indistincta**, n.—This differs from the Burmese form *Z. virescens*, *Butler*, and typical *Z. meges* from the Philippines in having on the underside of the hindwing the tornal area much greyer and the three white transverse bands blurred and not clearly defined.

Taken not uncommonly at 4,000—5,000 ft. from April to October and single male at Gaspani, 1,700 ft., in July.

191. **Teinopalpus imperialis**, *Hope*.—Many males taken at 7,000 ft. in September; no females were seen.

192. **Papilio cerberus**, *Felder*.—Not uncommon at the foot of the hills from March to August.

193. **Papilio æacus**, *Felder*.—Taken sparingly at the foot of the hills in March and June and at 7,000 ft. in August.

194. **Papilio aristolochiæ**, *Fabr.*—A few specimens taken at the foot of the hills in July and August and December.

195. **Papilio astorion**, *Westw.*—Taken sparingly from March to November at the foot of the hills and at Kohima.

196. **Papilio aidoneus**, *Doubleday.*—Rather rare; three males taken at the foot of the hills and at Kohima in February, August and September.

197. **Papilio philoxenus**, *Gray.*—Taken commonly from April to October from the foot of the hills up to 7,000 ft. The variety *polymitis* was not met with.

198. **Papilio dasarada**, *Moore.*—Two males taken at low elevations in April and November and a female at Kohima in October.

199. **Papilio demoleus**, *L.*—Specimens taken at the foot of the hills from June to November.

200. **Papilio helenus**, *L.*—Common; small cold weather forms taken at the foot of the hills in February and large summer forms at 5,000—7,000 ft. from July to November.

201. **Papilio agenor**, *L.*—Taken sparingly at low elevations from March to November. Female forms *bullerianus*, *Rothschild*, and *alcanor*, *Cramer*, were obtained.

202. **Papilio protenor**, *Cramer.*—Males common; small cold weather forms taken at the foot of the hills in February and March, large rainy season forms from the foot of the hills up to 6,000 ft. from June to September. Females rather rare.

203. **Papilio rhetenor**, *Westwood.*—Small cold weather forms taken at the foot of the hills in March and April; large wet season forms taken at 5,000—6,000 ft. in September and October. Females very rare.

204. **Papilio chaon**, *Westwood.*—A single small cold weather form taken in February and several large wet season forms in August, all at low elevations.

205. **Papilio polytes**, *L.*—Common at the foot of the hills throughout the year and a few at 4,000 ft. in July and August; the female form *cyrus* *Fabr.*, is decidedly rare.

206. **Papilio castor**, *Westwood.*—Males not uncommon at low elevations from July to September. A single female was taken.

207. **Papilio agestor**, *Gray.*—A single specimen taken in my garden at Kohima in May; several more were seen. I believe this form has not been recorded further west than Nepal but Captain Graham showed me a specimen in his collection which he informs me he captured himself at Simla.

208. **Papilio clytia**, *L.*—The *clytia* form was not obtained, but the *dissimilis* form was not uncommon at the foot of the hills from February to June.

209. **Papilio telearchus**, *Hewitson.*—Two males taken at Tamlu, 1,500—3,000, ft., and a male at Michuguard in August.

210. **Papilio danisepa**, *Butler.*—A single male of this beautiful and rare form taken at Tamlu in September and two more at Michuguard in June.

211. **Papilio elephenor**, *Doubleday*.—Six males of this rare form were obtained at Tambu in August and several specimens near Michuguard in February, March and April.

212. **Papilio triumphator**, *Frühstorfer*.—Taken rather commonly at the foot of the hills and up to 7,000 ft., from February to October. The cold weather forms taken in February and April are very small.

Ab: *mai*, n.—Several curious aberrations of the cold weather form, taken in February and April, have the patch on the hindwing brilliant green instead of blue.

213. **Papilio paris**, *L.*—Very common throughout the year from the foot of the hills up to 6,000 ft. Specimens of the spring brood taken in February and March are much smaller than the summer brood and have the bright patch on the hindwing slightly greener.

214. **Papilio krishna**, *Moore*.—A battered specimen taken by Doherty (fide Elwes). I have not met with it in these hills but have taken many specimens in the adjacent hill of Manipur at 8,000 ft. in May.

215. **Papilio arcturus**, *Westwood*.—Not uncommon at 4,600—7,000 ft.; July to October.

216. **Papilio gyas**, *Westwood*.—Males not uncommon at 5,000—6,000 ft. from July to October. No females were obtained.

217. **Papilio sikhimica**, *Heron*.—Two males taken at about 2,000 ft. in April; one of these is a curious aberration and has on the forewing the fourth transverse black band from the base quite wanting and the second band broken in the middle.

218. **Papilio alcibiades**, *Fabr.*—Very common at the foot of the hills from May to August, a few were also taken in March and April. Neither Moore nor Bingham mentions the difference in the seasonal forms which is well marked. The early spring brood taken in March and April is smaller than the summer brood and has the markings much lighter; Bingham's description of *alcibiades* applies well to this form. The summer brood taken from May to August is larger and darker than the spring brood and has the terminal black margin on the forewing produced to vein 1, and sometimes beyond it touching the dorsum; the post discal band, which in the spring form never touches the marginal band and stops at vein 3 or before it, is prolonged and joins the marginal band at vein 2 or sometimes at vein 1, thus completely enclosing the submarginal greenish white band, approaching in this respect typical *antiphates*, Cr.

219. **Papilio anticrates**, *Doubleday*.—Appears to be single brooded. Common at the foot of the hills in April and a few specimens were also taken in May.

220. **Papilio azion**, *Felder*.—Not uncommon; taken at the foot of the hills from April to September.

BUTTERFLIES FROM THE NAGA HILLS.

EXPLANATION OF PLATE B.

- Fig. 1. *Una usta*, *Distant* ♂ .
,, 2. *Una usta*, *Distant* ♀ .
,, 3. *Ilerda kohimensis*, *n. sp.* ♂ .
,, 4. *Ilerda viridipunctata*, *de. N. Race Kala*, *n.* ♂ .
,, 5. *Aphnæus* ?
,, 6. *Lampides elpis*, *Godart.* ab : *Chinee*, *nov.*
,, 7 & 8. *Phengaris atroguttata*, *Oberthür* ♀ . Upper and
underside.



1



2



3



4



5



6



7



8

NAGA HILL BUTTERFLIES.

221. *Papilio chiron*, *Wallace*.—Not uncommon near Tamlu in August; a male also taken near Michuguard in April.
222. *Papilio agamemnon*, *L.*—Common at the foot of the hills from February to August. A single specimen taken as high as 5,000 ft.
223. *Papilio cloanthus*, *Westwood*.—Not common, a few specimens taken at 1,700 ft. in March and at 5,000—6,000 ft. from May to September. The spring brood taken in March is much smaller than the summer brood. Specimens from these hills are somewhat larger than those from Garhwal in my collection.
224. *Papilio sarpedon*, *L.*—A very common butterfly; taken at the foot of the hills in February, July and August and at Kohima from July to September. The spring form taken in February is smaller than the summer form and has the blue bands on both wings somewhat broader.
225. *Papilio xenocles*, *Doubleday*.—A few specimens taken at the foot of the hills in May and August.

FAMILY—PIERIDÆ.

226. *Delias descombesi*, *Boisduval*.—A few specimens taken at 1,500—4,600 ft. in August and September.
227. *Delias aglaia*, *L.*—Very common at the foot of the hills and at Kohima in February, March and July to November.
228. *Delias thysbe*, *Cramer*.—Taken rather sparingly from the foot of the hills up to 5,000 ft. in February and August to November.
229. *Delias agostina*, *Hewitson*.—Not uncommon at 1,700—5,000 ft. from July to October.
230. *Delias ithiela*, *Butler*.—Very common at 4,000—7,000 ft. in August and September; a few specimens also taken in October.
231. *Prioneris thestylis*, *Doubleday*.—Males common, females uncommon. Dry season forms taken at the foot of the hills in April and at Kohima in October; wet season forms taken from the foot of the hills up to 5,000 ft. from May to October.
232. *Prioneris clemanthe*, *Doubleday*.—Not uncommon at Tamlu in August.
233. *Aporia agathon*, *Gray*.—A single male taken near Phiphima, 4,000 ft. in May.
234. *Pieris brassicæ*, *L.*—Rather scarce; two males and three females taken at Kohima in February, August and October. They do not differ from specimens from the N.-W. Himalaya except that in the female the discal spot on the forewing is joined to the black apical band by veins 3 and 4 being bordered with black, the area thus enclosed is powdered with black scales. I believe this butterfly has not been recorded further east than Bhutan.
235. *Pieris naganum*, *Moore*.—A single male of this rare butterfly was

taken by my collector in March between Kohima and Nichuguard, probably at the former place itself; unfortunately the exact locality was not written on the envelope.

236. *Fieris canidia*, *Sparrrnan*.—Abundant throughout the year from the foot of the hills up to 6,000 ft.

237. *Fieris melete*, *Ménétriés*.—Rather uncommon, a few specimens obtained at 5,000—6,000 ft. in February, August and November.

238. *Huphina copia*, *Wallace*.—A single male of the intermediate form taken in April and two males of the dry season form (*H. dapatha*) taken in February. The wet season form was obtained in the neighbouring State of Manipur in August and September; all at low elevations.

239. *Huphina nadina*, *Lucas*.—A few specimens of both sexes taken at Kohima and Tamlu in August.

240. *Izias latifasciata*, *Butler*.—Common; a very variable form. Two extremely small dry season forms with no black on termen of hindwing taken in February at the foot of the hills; typical wet season forms taken from September to November and intermediate forms in December at 2,000—6,000 ft.

241. *Appias nero*, *Fabricius*.—Not uncommon at low elevations; males taken in April, June, July and October. The colour is very variable, in some specimens it is orange, red and in other vermilion red.

242. *Appias hippe*, *Cramer*.—Common at the foot of the hills up to 5,000 ft.: April to October.

243. *Appias lalage*, *Doubleday*.—Rather common throughout the year from the foot of the hills up to 6,000 ft. Extreme dry season forms taken from January to March, large dark wet season forms from June to October, and intermediate forms in October and November.

244. *Appias albina*, *Boisduval*.—Rare; a single male taken at the foot of the hills in April and a female of the wet season form at Kohima in August.

245. *Catopsilia crocale*, *Cramer*.—Not uncommon; a few specimens of typical *crocale* taken at the foot of the hills in May and the form *catilla* taken from March to May and again in November.

246. *Catopsilia florella*, *Fabr.*—Common at Michuguard in February.

247. *Dercas lycorias*, *Doubleday*.—Recorded by Mr. Doherty as being rather common in June and disappearing in July (*vide* Elwes). I only obtained a pair, one in July and one in October.

248. *Colias fieldi*, *Ménétriés*.—Common in the Zulla valley 6,500 ft. in November and near Kohima July to October.

249. *Terias venata*, *Moore*.—Rather common at Kohima, August to October.

250. *Terias libythea*, *Fabricius*.—A few specimens taken at Kohima from February to August; not very common. Dry season forms taken in February have the cilia and edges of both wings pinkish.

251. *Terias laeta*, *Boisduval*.—Very common at Kohima; dry season forms taken from January to May and again in November, wet season form taken in October.

252. *Terias hecabe*, *Lin.*.—Very common throughout the year.

253. *Terias silhetana*, *Wallace*.—Not uncommon, August to November, at Kohima.

254. *Hebomoia glaucippe*, *L.*.—Common at the foot of the hills up to 2,000 ft. from February to November.

255. *Pareronia avatar*, *Moore*.—A single male taken at 2,000 ft. in July and several males and three females at 5,000—6,000 ft. in August and October.

FAMILY—LYCÆNIDÆ.

Sub-family—GERYDINÆ.

256. *Gerydus irroratus*, *Druce*.—Recorded from the Naga Hills (*vide* Bingham).

257. *Allotinus drumila*, *Moore*.—A single female taken at Jaspani 1,700ft. in February.

258. *Allotinus multistrigatus*, *de N.*.—Taken by Doherty (*vide* Elwes).

Sub-family—LYCENINÆ.

259. *Una usta*, *Distant*.—Pl. ii, fig 1 ♂, 2 ♀. Originally described from Malacca and has not I believe been previously recorded from within Indian limits. Four males were taken at Gaspani, 1,700 ft., in November and a female in February. I give a description of the female which is undescribed.

Upperside: Forewing, costa, apex and termen reaching the dorsum broadly dark brown, remainder of the wing sky blue; hindwing pale brown with a slight irroration of blue scales on the disc. Underside, pale silky buff; forewing unspotted; hindwing a small costal spot in interspace 7 and a small spot at the tornal angle, a sub-marginal row of pale fuscous spots hardly discernible. Expanse 1.02 inches. The absence of the spots, in the female, which are so conspicuous in the male may be due to seasonal causes as the specimen was taken in the height of the cold weather. The spot at the tornal angle of the hindwing in the female is absent in the males taken. In the plate there is a spot on the forewing of the female which is a flaw in printing.

260. *Pithecopis hylax*, *Fabricius*.—Very common at Gaspani in February and March.

261. *Necpithecopis zalmora*, *Butler*.—A single specimen obtained at 1,700 ft. in July.

262. *Taraka hamada*, *Druce*.—A single specimen taken in October 4,000—5,000 ft.

263. *Mejisba malaya*, *Horsfield*.—Two specimens of the tailed form taken at the foot of the hills in April and May.

264. *Phengaris atroguttata*, *Oberthür*.—Pl. ii., figs. 7, 8 ♀. A single specimen of this beautiful species was taken by my collector at Yakama about 5,000 ft. either at the end of October or the beginning of November. A good number were taken by Doherty in the Kutcha Naga country from 6,000—8,000 ft. elevation.

265. *Cyaniris marginata*, *de N.*—Taken sparingly at Kohima from September to November.

266. *Cyaniris albocerulea*, *Moore*.—Rather rare, a few males taken from August to November at 5,000—6,000 feet.

267. *Cyaniris transpecta*, *Moore*.—A single dry season male taken at Kohima in May; also a few specimens of both sexes of the wet season form from August to October.

268. *Cyaniris puspa*, *Horsfield*.—Very common; dry season forms taken from November to February and wet season forms from June to November.

269. *Cyaniris placida*, *de N.*—Many males taken at 5,000—6,000 ft. from July to September.

270. *Cyaniris diluta*, *Moore*.—Very common at 5,000 ft., September to January.

271. *Cyaniris jynteana*, *Moore*.—Very common. The seasonal forms vary considerably; typical wet season forms taken from June to October; intermediate forms from October to January and dry season forms from November to May.

273. *Bothrina chennelli*, *de N.*—This has previously been placed under the genus *Cyaniris*. Colonel Swinhoe pointed out to me that it differed from true *Cyaniris* in having veins 11 and 12 anastomosed; in *Cyaniris* they are free.

Not common, a few specimens taken at Kohima in February and October.

274. *Zizera maha*, *Kollar*.—Common throughout the year from the foot of the hills up to 6,000 ft.

275. *Zizera lysimon*, *Hübner*.—A single specimen taken at 2,000 ft. in April.

276. *Zizera otis*, *Fabr.*—Taken commonly at the foot of the hills in February, April and November.

277. *Lycaenesthes emolus*, *Godart*.—Males not uncommon at low elevations from March to November. A single female was obtained at Kohima in October.

278. *Lycaenesthes lycaenina*, *Felder*.—A single male at 1,700 ft. in October, and several males at Nichuguard during the same month.

279. *Talicada khasia*, *Druce*.—This is a well marked race of *T. nyseus*,

Guérin, very common at 6,000 ft. during October, a few also taken in September, November and December.

280. *Everes argiades*, *Pallas*.—Taken sparingly from August to November and again in February. This form varies much in size.

281. *Everes parrhasius*, *Fabr.*—A single specimen taken at Kohima in November and many specimens at Michuguard in October.

282. *Everes kala*, *de N.*—A couple taken at Maothana, on the Manipur frontier, 6,000 ft. in November, and many specimens of both sexes at Yakama from July to September.

283. *Nacaduba macropthalma*, *Felder.*—Four males and a female taken from July to November from the foot of the hills up to 5,000 ft.

284. *Nacaduba bhutea*, *de N.*—Taken sparingly at low elevations in March, April and November.

285. *Nacaduba dana*, *de N.*—Two males in August and October at 4,000—6,000 ft. and several males at the foot of the hills in February.

286. *Nacaduba atrata*, *Horsfield.*—Males not uncommon at Kohima in June and August, females rare; a single male also taken at 1,700 ft. in April.

287. *Nacaduba prominens*, *Moore.*—Two specimens in November, at 1,700 ft. This may be only a seasonal form of *M. atrata* from which however it can easily be distinguished by its more pointed wings and the markings on the underside being less pronounced.

288. *Nacaduba nora*, *Felder.*—Taken sparingly in March at 2,000 ft. and at Kohima in August.

289. *Nacaduba noreia*, *Felder.*—A female identified by Colonel Swinhoe as belonging to this form and figured in *Lep. Ind.* pl. 659, fig. 2a was taken at Kohima in November; seven males also taken at Gaspani during the same month.

290. *Nacaduba coelestis*, *de N.*—Taken by Doherty in the Naga Hills but I have not met with it.

291. *Nacaduba hermus*, *Felder.*—A few males taken at Kohima in June and August and a single female in August at 7,000 ft.

292. *Lampides bochus*, *Cramer.*—Common from the foot of the hills up to 4,600 ft.

293. *Lampides cloodus*, *Felder.*—Rare, a single male of the wet season form taken at 1,700 ft. in October and a male of the dry season form at the foot of the hills in February.

294. *Lampides conferendus*, *Butler.*—Not common, taken at the foot of the hills in November and February.

295. *Lampides celeno*, *Cramer.*—Fairly common at the foot of the hills in April, October and November.

296. *Lampides elpis*, *Godart.*—Very common from the foot of the hills up to 5,000 ft. throughout the year. A very variable form which can however be divided off into four well marked groups.

(a) Typical wet season forms with the underside *grey brown* taken from April to October.

(b) An autumn form very similar to the wet season form but with markings on the upperside of the hindwing fainter and the colour of the underside *pale brown* taken in October and November.

(c) A winter form, smaller and paler than the autumn form, colour of the underside *yellow brown* with all the markings very faint and orange patch near tornus of hindwing almost absent, taken from November to February.

(d) A fourth form taken from November to April is very small and has the black on the termen of the forewing reduced to a thread and markings on the hindwing obsolescent; on the underside it is exactly like the wet season form in having the ground colour *grey brown* and the orange patch near the tail of the hindwing well marked.

Ab., *chinee* nov. pl. ii, fig. 6.

This curious aberration of form (d) has the markings on the underside more or less ringed and those near the dorsum of the hindwing absent. A single specimen taken at the foot of the hills in April.

A male of form (b) has the colour of the upperside pure sky blue with no tint of purple as in typical forms.

297. *Catochrysope strabo*, Fabricius.—A few specimens taken at Kohima, August to November, and at the foot of the hills, October to January.

298. *Catochrysope lithargyrea*, Moore.—A few specimens taken at Kohima in July and at the foot of the hills in April and May. A very small and pale extreme dry season form male with markings on the hindwing almost wanting was obtained at Kohima in February.

299. *Tarucus plinius*, Fabr.—A single female at Kohima in August.

300. *Castalius ananda*, de N.—A single male at the foot of the hills in March.

301. *Castalius rosimon*, Fabr.—Common at the foot of the hills throughout the year.

302. *Castalius ethion*, Doubleday and Hewitson.—A few specimens taken at Kohima in October and at Nichuguard in July.

303. *Castalius elna*, Hewitson.—Taken sparingly at the foot of the hills from March to July.

304. *Polyommatus boeticus*, L.—Very common at Kohima, October to February, and at Michuguard in April.

Sub-family—CURETIÆ.

305. *Curetis bulis*, Doubleday and Hewitson :—A single male taken at Michuguard in May.

306. *Caretis dextrata*, Moore.—Common at the foot of the hills. April and May.

307. *Curetis angulata*, Moore.—Very common at Kohima from August to November, a single specimen also taken at Gaspani in November. There are three well marked seasonal forms.

(a) Wet season forms taken in August and September are very dark and have the basal area of the hindwing blackish.

(b) An autumn form taken from September to October has the red rather paler and the black at the base of the hindwing reduced to a streak between veins 7 and 8.

(c) Dry season forms taken in November have the red richer and darker than the autumn forms and no black at the base of the hindwing.

The above three forms are fairly constant, only a few specimens out of a large series were found to be intermediate.

308. *Curetis discalis*, Moore.—Taken commonly at the foot of the hills from April to July; also a single specimen at 5,000 ft. in August.

Sub-Family—PORITIANÆ.

309. *Foritia geta*, Fawcett.—Four males taken in September and two in October near Kohima at about 4,000 ft. My native collector also sent me three females from Manipur.

Sub-Family—ARHOPALINÆ.

310. *Surendra quercetorum*, Moore.—Not uncommon; taken at the foot of the hills and at Kohima from April to August.

311. *Arhopala virithous*, Moore.—A male at 1,700 ft. in November and another at Nichuguard in February.

312. *Arhopala cœnea*, Hewitson.—A single specimen at Nichuguard in February.

313. *Arhopala agaba*, Hewitson.—A male taken in July and another in September at 5,000 ft.

314. *Arhopala bazaloides*, Hewitson.—Two females taken at Kohima in October and November.

315. *Arhopala singla*, de N.—Common: a couple of males taken at the foot of the hills in April and many specimens of both sexes at Kohima in January and February and also from July to November. Many specimens obtained were deep blackish purple and these I at first believed to be *A. bazalus*, Hewitson, but on shewing them to Mr. Bethune-Baker he identified both forms for me as *A. singla*.

316. *Arhopala fulgida*, Hewitson.—Six specimens taken at Gaspani in July and November.

317. *Arhopala arbegal*, Doherty.—Two specimens identified by Colonel Swinhoe as belonging to this species were taken in Gaspani in November.

318. *Arhopala diardi*, Hewitson.—Taken by Doherty in the Naga Hills. I have received it from the adjacent State of Manipur where it is not uncommon.

319. *Arhopala hellenore*, Doherty.—Males taken commonly in my garden at Kohima from June to August and two females at 1,700 ft. in February and November. Both sexes seem to be very common in Manipur.

320. *Arhopala paramata*, de N.—Two males taken in February and June at Gaspani and Nichuguard.

321. *Arhopala perimuta*, Moore.—A female taken at Gaspani in April.

Sub-family—THECLINÆ.

322. *Zephyrus duma*, Hewitson.—A couple of worn males taken above Kohima at 7,000 ft. in September.

323. *Zephyrus* sp. ? A single female of a form very near to *Z. syla* taken at Kirbari in the Zulla valley, 6,000 ft., in November.

324. *Ilerda epicles*, Godart.—Common at Gaspani in October and at the foot of the hills in June and July, a single male also taken in February.

325. *Ilerda kohimensis*, n. sp., Pl. ii, fig. 3. Male. *Upperside*: forewing, costa narrowly apex and termen broadly blackish brown, the remainder of the wing dull purple, this colour filling the cell and basal third of inter-space 6 and reaching the dorsum; hindwing, costa and termen broadly blackish brown, the remainder of the wing dull purple, three red lunules on the black terminal margin near the tornus, the upper one small and sometimes wanting.

Underside: forewing ochreous yellow, termen with a red marginal band commencing narrowly just below the apex and widening gradually as far as vein 2 and then continued to the tornal angle by a black streak bordered on both sides with white, another white streak above it on the inner margin of the red terminal band in interspace 2; a post discal series of blackish streaks in interspaces 1, 2, 3, 4, 5 and 6 very faint and sometimes wanting in the upper three; hindwing, ochreous yellow with a red terminal band powdered with white scales and bordered inwardly with white lunules with dusky edges and outwardly by a white line followed by a black thread both interrupted by the veins, the inner edge of this white line is bordered with a row of black triangular spots; a black spot in interspace 7 near the apex, one in the cell and another below it in interspace 1 and also one near the tornal angle; three post-discal white spots in interspaces 2, 4 and 5 the lower one the largest.

Cilia, black with a little white between the veins.

Antennæ, black ringed with white.

Female: *Upperside* blackish brown; forewing with a large post discal orange spot; hindwing with a terminal series of red lunules reaching the apex. *Underside*: as in male but somewhat paler and duller; hindwing without the subapical black spot.

Expanse 1.24 inches.

The male differs from *I. epicles* in having on the upperside the purple coloration more extended, covering nearly the whole of both wings, and of a duller shade; on the underside the yellow is purer. The female only differs on the upperside in having the red discal patch larger but as I secured only a single specimen of this sex this may not be constant; on the underside it is paler and duller. Mr. Bethune-Baker who kindly examined the genitalia for me writes:—

“I do not think they are the same (i.e., *I. epicles* and *I. kohimensis*). The *harpagines* (clasps) are practically similar but the other parts have distinct differences. The *tegumen* of yours has its lateral lobes quite twice as broad and they are somewhat curved and have conspicuous tubercles from which the hairs arise; whilst the *falces* (hooks) are angled about the middle; in *epicles* the *hooks* are narrow and straight and the *tubercles* quite inconspicuous, whilst the *falces* are evenly curved exactly like a sickle. In yours the *adæagus* (penis sheath) is much longer and much more slender than in *epicles*; and again the *cingula* (girdle) is inclined strongly forward whilst in *epicles* it is nearly erect.”

Fifteen males and one female were captured at 5,000—7,000 ft. from September to December. It is not nearly so common as *I. epicles* and flies at a much higher altitude.

I was at first inclined to think that this might only be a well marked local race of *I. epicles* but the differences in the genitalia point to it being quite distinct from that species.

326. **Ilerda androcles**, *Doubleday* and *Hewitson*.—Taken commonly at 4,600—7,000 ft. from August to November. This is the commonest *Ilerda* in these hills.

327. **Ilerda viridipunctata**, *de N.*—Race *kala*, n. Pl. ii., fig. 4. Under the above name I separate the form of *I. viridipunctata* found in these hills from the typical form found in Sikhim and the N.-W. Himalayas. On the upperside it differs in having the green powdery patch, which is so conspicuous in the typical form, reduced to a mere sprinkling of scales, hardly discernable in some specimens, giving the insect a very black appearance; these scales are also greener than in the typical form.

Mr. Elwes records it as being common in the Naga Hills at 6,000 ft. and above. I only obtained it in November at 5,000—6,000 ft. when it was rare owing probably to the lateness of the season.

328. **Ilerda brahma**, *Moore*.—Very common at 5,000—7,000 ft. from August to November; a few specimens which are somewhat smaller were taken in March at 4,000 ft.

Aberration *hybrida*, n.

Very similar to typical *I. brahma* but differs in the colour being brassy green and the terminal red band on the hindwing narrower.

I have placed this form as an aberration of *I. brahma* but it may be a hybrid or even a distinct species. In colouring it is intermediate between *I. androcles* and *I. brahma*. I obtained two specimens, one taken by myself at 4,400 ft. and another taken by my collector at 7,000 ft. In the de Niceville collection, now in the Calcutta Museum, there is a specimen of this form, placed amongst *Ilerda viridipunctata* which may be one of the two sports or hybrids referred to by him in his "Butterflies of India, vol. iii, p. 330" and which he thinks may possibly be a hybrid of *I. brahma* and *I. viridipunctata*; if this form is a hybrid at all it is more likely to be one of *I. brahma* and *I. androcles* as the extent of the coloring and the character of the scales agrees with these two species whereas in *I. viridipunctata* the colour is restricted and the scales have a powdery appearance, and these characters would to a certain extent be indicated in the hybrid while they are not in the present form.

329. **Camena ctesia**, *Hewitson*.—Common at 5,000 ft. from July to December, two males also taken, at the foot of the hills in May and July.

330. **Tajuria maculatus**, *Hewitson*.—A single male taken at Gaspani in March.

331. **Tajuria illurjis**, *Hewitson*.—A single male at 5,000 ft. in September.

332. **Aphnæus syama**, *Horsfield*.—Very common at the foot of the hills. Rainy season forms taken from August to November and dry season forms in November and March.

333. **Aphnæus lohita**, *Horsfield*.—Common at Kohima and up to 7,000 ft. from June to October; also a few specimens obtained at the foot of the hills from February to July.

334. **Aphnæus khurdanus**, *Moore*.—I do not know if I have identified this insect correctly; the male is like *A. ictis* but without any orange spot. The female is a good deal larger than the male and has a Y shaped red post discal patch and has the basal area of the forewing speckled with bluish grey; these scales also appearing sparsely on the dorsal half of the hindwing, being most numerous near the tornal angle.

335. **Aphnaeus sp.** Pl. ii., fig. 5.—Four males of an *Aphnaeus* were taken between 4,000 ft and 6,000 ft. in September and October which do not quite agree with any form in the "Butterflies of India." The underside agrees with the description of *A. suni* but the upperside has no red discal spot. Mr. Elwes in P. Z. S. 1892, p. 638, describes and on pl. 43 (6) figures a female *Aphnaeus* from the Karen Hills which agrees with my males on the underside and in the coloring of the anal lobe on the upperside, and appears to be the female of this form. I showed it to Colonel Swinhoe who pronounced it to be *A. peguanus*, Moore; de Niceville seems to think *A. peguanus*=*A. syama* and is the dry season form of it.

Whatever the present form is, it certainly is not the dry season form

of *A. syama* which I took commonly and from which it can be at once distinguished by the deeper colour of the blue on the upperside and on the underside by the hook shaped streak in the cell. The forewing is also of a different shape and more pointed. The two insects when placed side by side look totally different.

336. **Aphnaeus rukmini**, *de N.*—A single male taken at the foot of the hills in April.

337. **Hypolyæcna erylus**, *Godart.*—Males very common at the foot of the hills from March to November. Females rather rare.

338. **Chliaria othona**, *Hewitson.*—Three males obtained at the foot of the hills from March to August.

339. **Chliaria kina**, *Hewitson.*—Three males taken at Kohima in October, also four males and two females bred from larvæ. I give the transformations from larva to imago.

At Kohima on 25th September 1909 an orchid, *Vanda cærulea*, was brought to me. On it feeding on the flowers were seven larvæ. On 27th and 28th four larvæ left the flowers and descended to the leaves of the orchid where they lay quietly on the upper surface of the leaves, three on one leaf and one on another; here they lay without moving till they pupated which two did on morning of 29th, one on the evening of the same date and one on the morning of the 30th. Two more left the flowers on 30th September and 1st October and pupated on the flower stem at its base close to the leaves. The seventh died.

The positions chosen seemed to be immaterial as some had their heads downwards and some up.

Larvæ when full grown were about .64 inches in length and of the usual onisciform shape. Colour pale green with dorsal spiracular, super-spiracular and sub-spiracular reddish mauve bands, all with the exception of super-spiracular coalescing near 11th and 12th segments; the dorsal band could be distinctly seen to expand and contract with the breathing. 11th to 14th segments entirely reddish mauve. Head pale greenish yellow with black eyes and when at rest drawn in under 2nd segment. Spiracles black ringed faintly with yellowish; prolegs tinged with reddish mauve; four dark dorsal dots on 2nd segment; a gland on dorsum between 11th and 12th segments exuding a crystal liquid eagerly sought after by attendant ants; the ant tickles the larva until it exudes a drop of liquid which it immediately drinks up. The whole of the upper body covered with short dark hairs.

Whilst preparing for transformation to the pupal stage the reddish mauve colour of the larva diminishes in intensity and when the larval skin is cast off the colour of the pupa is pale green with the mauve stripes showing faintly. The pupa lies flat on the upper surface of the leaf or on the side of the raceme to which it is attached by the cremaster to a

silken pad previously spun and is held in position by a fine thread round the 5th segment attached to the leaf on both sides of the body.

The pupa which has a decided dip between the thorax and abdomen is about .43 inches in length. By degrees the colour of the pupa changes and just before the imago emerges it becomes dark-brownish green. One imago, a male, emerged on 11th October, another male on 12th, a third male and two females on 14th and a fourth male on 16th.

340. *Zeltus etolus*, *Fabr.*—Very common at the foot of the hills up to 1,700 ft. from March to November: females rather rare, only three being obtained.

341. *Cheritrella truncipennis*, *de N.*—A single male taken on a peach tree in my garden at Kohima on 21st November.

342. *Cheritra freja*, *Fabricius.*—A male and two females taken at Gaspani 1,700 ft. in August and November.

243. *Ticherra acte*, *Moore.*—Two females of the dry season form taken at Nichuguard and Gaspani in February and two females of the wet season form in July and October.

344. *Catopacilma elegans*, *Druce.*—Two males taken at Gaspani in March.

345. *Loxura atymnus*, *Cramer.*—Common from the foot of the hills up to 1,700 ft., April to October.

346. *Gasada tripunctata*, *Hewitson.*—Rainy season forms taken in May and June and dry season forms in November and December.

347. *Deudorix epijarbas*, *Moore.*—Two females taken at 5,000 ft. at the end of October and the beginning of December.

348. *Rapala schistacea*, *Moore.*—Taken not uncommonly in my garden at Kohima in October and November.

349. *Rapala varuna*, *Horsfield.*—A single female taken at Nichuguard in June.

350. *Rapal buzaria*, *de N.*—I am not sure if I have identified this form correctly. It closely resembles the next form with which it flies, from which however it can be distinguished on the upperside by entirely lacking the orange spot and by the blue of the discal area, which is of a slightly different shade, not entering the cell; in all specimens of *R. nissa* taken in these hills the blue enters the cell. On the underside the transverse bands on both wings are narrower and straighter.

351. *Rapala nissa*, *Kollar.*—Very common at Kohima throughout the year. Cold weather forms taken from December to February are much smaller than the wet season forms and have a purple sheen on the underside; the orange spot on the forewing is much larger and the spot above the tail on the underside of the hindwing is very small. This eastern form of *R. nissa* differs from the N.-W. Himalayan form in being larger and having the blue colouration on upperside richer and deeper. The